

Remarks

Claims 1, 12, 20, 31, 37 and 43 have been amended. Claims 10, 18, and 24 have been withdrawn. Claims 44-58 have been added. Claims 1-9, 11-17, 19-23, and 25-58 are currently pending in the present application.

The Examiner suggested that claim 16 would be allowable if rewritten in independent form including all limitations of claim 12. New independent claim 44 incorporates all the limitations of claims 12 and 16. Accordingly, claim 44 and dependent claims 45-50 are in condition for allowance.

The Examiner also suggested that claim 40 would be allowable if rewritten in independent form including all limitations of claim 37. New independent claim 51 incorporates all the limitations of claim 37 and 40. Accordingly, claim 51 and dependent claims 52-58 are in condition for allowance.

I. § 102(b) Rejections

Claims 1-2, and 4 were rejected under 35 U.S.C. 102(b) as being anticipated by Walsh. Further, claims 1-4, 11-15, 19-21, 25-31, 35, 37-39, and 41-43 were rejected as being anticipated by Jager, et al. ("Jager"). It is respectfully submitted that claims 1-4, 11-15, 19-21, 25-31, 35, 37-39, and 41-43 are not anticipated.

A. Independent Claim 1 Is Not Anticipated by Walsh

Amended claim 1 is directed to a liquid dispensation device. The device has a pin element oriented to move between a retracted position, wherein the pin element is disposed within the device, and an extended position, wherein a portion of the pin element is external to the device.

Walsh discloses a liquid dispensing apparatus having a plunger disposed within the apparatus. See Walsh, Fig. 1. No portion of the plunger is ever external to the device. In the "closed position," the distal end of the plunger mates "with a seat of an insert" while disposed within the dispenser body. See Walsh, col. 4, ll. 46-52. In the "open position," the plunger is caused "to move . . . so that the [distal end] is disengaged from the seat," and yet remains disposed within the dispenser body. See Walsh, col. 6, ll. 15-18. Walsh does not disclose a

device having a pin element with an extended position wherein a portion of the pin element is external to the device.

Walsh, therefore, fails to disclose a device having a pin element oriented to move between a retracted position, wherein the pin element is disposed within the device, and an extended position, wherein a portion of the pin element is external to the device. Reconsideration and withdrawal of the rejection of claim 1 is respectfully requested. Accordingly, claim 1 is in condition for allowance.

B. Claims Depending from Claim 1 Are Patentable

Because claims 2 and 4 depend directly or indirectly from claim 1 and incorporate all the limitations of claim 1, the above argument obviates the basis for this ground of rejection. Thus, claims 2 and 4 are not anticipated by Walsh. Reconsideration and withdrawal of the rejection is respectfully requested.

C. Independent Claim 1 Is Not Anticipated by Jager

As explained above, amended claim 1 is directed to a liquid dispensation device. The device has a pin element oriented to move between a retracted position, wherein the pin element is disposed within the device, and an extended position, wherein a portion of the pin element is external to the device.

Jager discloses a liquid dispensing apparatus having a plunger disposed with a portion external to the apparatus. Regardless of whether the plunger is in its fully retracted or fully extended position, the distal end of the plunger is external to the apparatus. See Jager, col. 2, ll. 37-42, Figs. 1 & 2. Jager does not disclose a pin element having a retracted position wherein the pin element is disposed within the device.

Jager, therefore, fails to disclose a device having a pin element oriented to move between a retracted position, wherein the pin element is disposed within the device, and an extended position, wherein a portion of the pin element is external to the device. Reconsideration and withdrawal of the rejection of claim 1 is respectfully requested. Accordingly, claim 1 is in condition for allowance.

D. Claims Depending from Claim 1 Are Patentable

Because claims 2-4, 8, 9, and 11 depend directly or indirectly from claim 1 and incorporate all the limitations of claim 1, the above argument obviates the basis for this ground of rejection. Thus, claims 2-4, 8, 9, and 11 are not anticipated by Jager. Reconsideration and withdrawal of the rejection is respectfully requested.

E. Independent Claim 12 Is Not Anticipated by Jager

Amended claim 12 is directed to a liquid dispensation device. The device has a contact element configured to dispense liquid without gravitational assistance.

Jager discloses a liquid dispensing apparatus having a plunger. For the apparatus to operate satisfactorily, the liquid must "travel downwardly along the rod or plunger." See Jager, col. 3, ll. 60-61. That is, the Jager apparatus requires gravitational assistance to operate satisfactorily. Jager does not disclose a contact element configured to dispense liquid without gravitational assistance.

Jager, therefore, fails to disclose a device having a contact element configured to dispense liquid without gravitational assistance. Reconsideration and withdrawal of the rejection of claim 12 is respectfully requested. Accordingly, claim 12 is in condition for allowance.

F. Claims Depending from Claim 12 Are Patentable

Because claims 13-17 and 19 depend directly or indirectly from claim 12 and incorporate all the limitations of claim 12, the above argument obviates the basis for this ground of rejection. Thus, claims 13-17 and 19 are not anticipated by Jager. Reconsideration and withdrawal of the rejection is respectfully requested.

G. Independent Claim 20 Is Not Anticipated by Jager

Amended claim 20 is directed to a liquid dispensation device. The device has a transfer pin having a contact end configured to dispense liquid without gravitational assistance.

Jager discloses a liquid dispensing apparatus having a plunger. For the apparatus to operate satisfactorily, the liquid must "travel downwardly along the rod or plunger." See Jager, col. 3, ll. 60-61. That is, the Jager apparatus requires gravitational assistance to operate

satisfactorily. Jager does not disclose a contact end configured to dispense liquid without gravitational assistance.

Jager, therefore, fails to disclose a device having a transfer pin, the transfer pin having a contact end configured to dispense liquid without gravitational assistance. Reconsideration and withdrawal of the rejection of claim 20 is respectfully requested. Accordingly, claim 20 is in condition for allowance.

H. Claims Depending from Claim 20 Are Patentable

Because claims 21-23 and 25-30 depend directly or indirectly from claim 20 and incorporate all the limitations of claim 20, the above argument obviates the basis for this ground of rejection. Thus, claims 21-23 and 25-30 are not anticipated by Jager. Reconsideration and withdrawal of the rejection is respectfully requested.

I. Independent Claim 31 Is Not Anticipated by Jager

Amended claim 31 is directed to a dispensation device. The device has a transfer pin moveable between a retracted position in which the transfer pin is disposed within the chamber and a dispensing position in which a portion of the contact end extends out of the chamber through the dispensation orifice.

Jager discloses a liquid dispensing apparatus having a plunger disposed with a portion external to the apparatus. Regardless of whether the plunger is in its fully retracted or fully extended position, the distal end of the plunger is external to the apparatus. See Jager, col. 2, ll. 37-42, Figs. 1 & 2. Jager does not disclose a transfer pin having a retracted position in which the transfer pin is disposed within the chamber.

Jager, therefore, fails to disclose a transfer pin moveable between a retracted position in which the transfer pin is disposed within the chamber and a dispensing position in which a portion of the contact end extends out of the chamber through the dispensation orifice. Reconsideration and withdrawal of the rejection of claim 31 is respectfully requested. Accordingly, claim 31 is in condition for allowance.

J. Claims Depending from Claim 31 Are Patentable

Because claims 32-36 depend directly or indirectly from claim 31 and incorporate all the limitations of claim 31, the above argument obviates the basis for this ground of rejection. Thus,

claims 32-36 are not anticipated by Jager. Reconsideration and withdrawal of the rejection is respectfully requested.

K. Independent Claim 37 Is Not Anticipated by Jager

Amended claim 37 is directed to a method of dispensing liquid. The method includes moving a transfer pin from a retracted position within the chamber to an extended position wherein a portion of the transfer pin is external to the chamber.

Jager discloses a liquid dispensing apparatus having a plunger disposed with a portion external to the apparatus. Regardless of whether the plunger is in its fully retracted or fully extended position, the distal end of the plunger is external to the apparatus. See Jager, col. 2, ll. 37-42, Figs. 1 & 2. Jager does not disclose moving a transfer pin from a retracted position within the chamber.

Jager, therefore, fails to disclose a method of dispensing liquid including moving a transfer pin from a retracted position within the chamber to an extended position wherein a portion of the transfer pin is external to the chamber. Reconsideration and withdrawal of the rejection of claim 37 is respectfully requested. Accordingly, claim 37 is in condition for allowance.

L. Claims Depending from Claim 37 Are Patentable

Because claims 38-42 depend directly or indirectly from claim 37 and incorporate all the limitations of claim 37, the above argument obviates the basis for this ground of rejection. Thus, claims 38-42 are not anticipated by Jager. Reconsideration and withdrawal of the rejection is respectfully requested.

M. Independent Claim 43 Is Not Anticipated by Jager

Amended claim 43 is directed to a method of dispensing liquid. The method includes magnetically moving a transfer pin through a chamber and into contact with a substrate, whereby the transfer pin carries an amount of liquid from the chamber to the substrate without gravitational assistance.

Jager discloses a liquid dispensing apparatus having a plunger. For the apparatus to operate satisfactorily, the liquid must "travel downwardly along the rod or plunger." See Jager, col. 3, ll. 60-61. That is, the Jager apparatus requires gravitational assistance to operate

satisfactorily. Jager does not disclose a transfer pin carrying an amount of liquid from the chamber to the substrate without gravitational assistance.

Jager, therefore, fails to disclose a method of dispensing liquid including magnetically moving a transfer pin through a chamber and into contact with a substrate, whereby the transfer pin carries an amount of liquid from the chamber to the substrate without gravitational assistance. Reconsideration and withdrawal of the rejection of claim 43 is respectfully requested. Accordingly, claim 43 is in condition for allowance.

II. § 103(a) Rejections

Claims 5-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Walsh in view of Miller et al. ("Miller"). Further, claims 5-7 were also rejected as being unpatentable over Jager in view of Miller. It is respectfully submitted that claims 5-7 are not unpatentable.

A. Independent Claim 1 Is Not Made Obvious by Walsh in view of Miller

As discussed above, claim 1, as amended, requires a pin element oriented to move between a retracted position, wherein the pin element is disposed within the device, and an extended position, wherein a portion of the pin element is external to the device.

As discussed above, Walsh teaches a liquid dispensing apparatus having a plunger that remains disposed *within* the dispenser body. See Walsh, col. 4, ll. 46-52; col. 6, ll. 15-18. Walsh does not teach or suggest a pin element oriented to move between a retracted position and an extended position wherein a portion of the pin element is external to the device. It does not teach or suggest a pin element with an extended position wherein a portion of the pin element is external to the device.

Miller fails to remedy the deficiencies of Walsh. Miller is relied upon merely as teaching the use of a rare earth magnet. See Office Action, p. 3, ll. 23-24. Miller fails to teach or suggest a pin element oriented to move between a retracted position and an extended position wherein a portion of the pin element is external to the device.

Neither Walsh nor Miller, alone or in combination, teach or suggest a pin element having an extended position wherein a portion of the pin element is external to the device. Accordingly, claim 1 stands in condition for allowance.

B. Claims Depending from Claim 1 Are Patentable

Because claims 5-7 depend directly or indirectly from claim 1 and incorporate all the limitations of claim 1, the above argument obviates the basis for this ground of rejection. Thus, claims 5-7 are not made obvious over Walsh in view of Miller. Reconsideration and withdrawal of the rejection is respectfully requested.

C. Independent Claim 1 Is Not Made Obvious by Jager in view of Miller

As explained above, amended claim 1 requires a pin element oriented to move between a retracted position, wherein the pin element is disposed within the device, and an extended position, wherein a portion of the pin element is external to the device.

As also explained above, Jager teaches a liquid dispensing apparatus having a plunger disposed with a portion permanently external to the apparatus. See Jager, col. 2, ll. 37-42, Figs. 1 & 2. Jager does not teach or suggest a pin element having a retracted position wherein the pin element is disposed within the device.

Miller fails to remedy the deficiencies of Jager. Miller is relied upon merely as teaching the use of a rare earth magnet. See Office Action, p. 3, ll. 23-24. Miller fails to teach or suggest a pin element oriented having a retracted position wherein the pin element is disposed within the device.

Neither Jager nor Miller, alone or in combination, teach or suggest a pin element having a retracted position wherein the pin element is disposed within the device. Accordingly, claim 1 stands in condition for allowance.

D. Claims Depending from Claim 1 Are Patentable

Because claims 5-7 depend directly or indirectly from claim 1 and incorporate all the limitations of claim 1, the above argument obviates the basis for this ground of rejection. Thus, claims 5-7 are not made obvious over Jager in view of Miller. Reconsideration and withdrawal of the rejection is respectfully requested.

III. Drawing Objections

Figures 1 and 2 were objected to under 37 C.F.R. 1.84 or 1.152. Figures 1 and 2 have been amended to address the reasons provided by the Examiner for the objection. New Figures 1-5 are attached to this Amendment and Response.

IV. Conclusion

Applicant has obviated by amendment and argument the anticipation rejections of claims 1-4, 11-15, 19-21, 25-31, 35, 37-39, and 41-43. Further, Applicant has obviated by amendment and argument the obviousness rejections of claims 5-7. Finally, Applicant has obviated by amendment the objections to Figures 1 and 2. Applicant has added new claims 44-58 to more fully claim the present invention.

Consequently, claims 1-9, 11-17, 19-23, and 25-58 are allowable. Reconsideration and a Notice of Allowance for all pending claims is respectfully requested.

Attached hereto are new Figures 1-6.

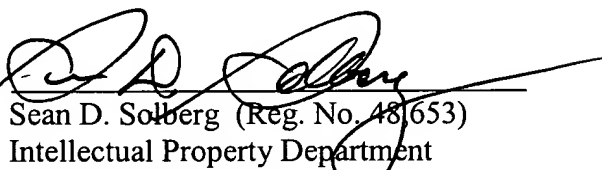
Respectfully submitted,

DORSEY & WHITNEY LLP
Customer Number 25763

Date:

June 11, 2003

By:


Sean D. Solberg (Reg. No. 48,653)
Intellectual Property Department
Suite 1500, 50 South Sixth Street
Minneapolis, MN 55402-1498
(612) 340-7862